



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,418	06/28/2001	Kenneth W. Brinkerhoff	MRNRP004	2273
22434	7590	09/02/2005	EXAMINER	
BEYER WEAVER & THOMAS LLP			LEVITAN, DMITRY	
P.O. BOX 70250				
OAKLAND, CA 94612-0250			ART UNIT	PAPER NUMBER
			2662	
DATE MAILED: 09/02/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/896,418

Applicant(s)

BRINKERHOFF ET AL.

Examiner

Dmitry Levitan

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 and 69-94 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 13-16, 18-23, 25-29, 31-35, 39, 69, 71, 73-75, 77-84, 86-91 and 94 is/are rejected.
- 7) ☒ Claim(s) 4, 11, 12, 17, 24, 30, 36-38, 70, 72, 76, 85, 92 and 93 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2662

Preliminary amendment, filed 06/28/01, has been entered. Claims 1-39 and 69-94 remain pending.

Specification

1. The disclosure is objected to because of the following informalities:
 - a. Blank space on page 2, reserved for the Application number.
 - b. References on pages 2, 3, 21 and 22 are not supported with submitted copies. Examiner requests copies of the references listed in the disclosure.
 - c. Typographical error on page 9, line 28: FIGURE 6B instead of FIGURE 6A.
 - d. Abbreviations or acronyms HSSI, POS are cited throughout the specification without explanation. Applicant should provide a full explanation for the acronyms at least at their first occurrence in the specification.

Appropriate correction is required.

Claim Objections

2. Claims 1-39, 72-74 and 82-94 are objected to because of the following informalities:
independent claims 1, 14, 26, 73 and 82 limitation “an appropriate ratio of filler data parcels” is unclear, because ratio is understood as a relationship between at least two parameters or values and the claims limitation includes only one parameter of the ratio;
claims 1, 14, 26, 36, 72, 73 and 82 limitation “an appropriate ratio of filler data parcels” is unclear, because it is not understood what ratio is appropriate and what is not.
3. Claims 3, 4, 16, 17, 29, 30, 75, 76, 84 and 85 are objected to because of the following informalities: claims limitation “a uniform pattern of client data parcels and filler data parcels” is

Art Unit: 2662

unclear, because it is not understood what pattern is considered uniform and what is not.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 5, 6, 13-16, 18, 19, 25-29, 31, 32, 39, 69, 73-75, 77, 81- 84, 86, 87 and 94 are rejected (as best understood) under 35 U.S.C. 102(e) as being anticipated by Settle (US 6,233,253).

6. Regarding claims 1, 14, 26, 69, 73 and 82, Settle teaches a method a system, a computer program and a scheduler (encoder system on Fig. 2 and 6 4:25-55) for scheduling data parcels from at least one client process (multiplexing packets from DVHS source into one flow as shown on Fig. 5) to be output for transmission over a first communication line (transmission channel as disclosed on 5:1-7), the first communication line having an associated first bit rate (output packets of multiplexer 20, comprising the DVHS packets and having maximum data rate limit 1:44-50, disclosed as R on 10:6-36), the at least one client process including a first client process having an associated second bit rate (video packets from DVHS storage source to be multiplexed at step 218 on Fig. 1 and 3:38-4:10, having associated second bit rate 5:47-6:15), comprising:

Identifying at a scheduler, a plurality of client data parcels associated with the first client process (inherently part of encoder system on Fig. 2, because identifying DVHS packets at the receiver is based on the PID of the packets inherently present at the encoder 5:20-25),

Scheduling selected client parcels to be included in an output stream provided to physical layer logic for transmission over the first communication line (inherently part of the encoder system on Fig. 2, wherein all packets from the DVHS source are multiplexed and outputted to transmission system on Fig. 2 and 5:1-8),

Determining an appropriate ratio of filler data parcels to be inserted into the output stream, said filler data parcels including non-meaningful data (calculating multiplexing ratio of NULL packets 11:18-35, NULL packets shown on Fig. 5 and described 10:51-60), and

Generating the output stream (output stream shown on Fig. 5 and 7:17-27),

Wherein the output stream includes client data parcels and filler data parcels (video packets from DVHS and NULL packets on Fig. 5 and 7:17-27).

In addition, regarding claim 82, Settle teaches means for identifying, scheduling and determining as an encoder system on Fig.2 or a PC on Fig. 6 and 7:53-8:38, means for generating the output stream as transmission system on Fig. 2 and 5:1-8.

7. Regarding claims 2, 15, 27, 74 and 83, Settle teaches determining an appropriate ratio of filler data parcels to be inserted into the output stream to cause a bit rate of the output stream to be substantially equal to the first bit rate (inserting NULL packets to compensate for the absence of the other packets in the output stream, therefore if the DVHS packets are the only packets to be multiplexed, the number of NULL packets in the output stream is zero, making the rate of the output stream substantially equal to the first bit rate/DVHS steam 12:44-60).

Art Unit: 2662

8. Regarding claims 3, 16, 28, 29, 75 and 84, Settle teaches the output stream as a uniform combination of client parcels and filler data parcels (output stream on Fig 5 comprising client data parcels and filler data parcels).

9. Regarding claims 5, 18, 31, 77 and 86, Settle teaches an output transmitter adapted to transmit data parcels over the first communication line (transmission system on Fig. 2 designated to transmit the multiplexer 20 output data-stream 5:1-7).

10. Regarding claims 6, 19, 32 and 87, Settle teaches transmitting a continuous stream bits over the first communication line during normal operation of the communication line (using NULL packets to substitute missing packets in the output stream 10:50-60, making the output stream continuous).

11. Regarding claims 13, 25, 39, 81 and 94, Settle teaches a second client process having associated third bit different from the second bit rate (audio packets with an audio frame rate 5:47-6:15, different from video frame rate) and comprises:

Identifying incoming client data parcels from the second client process (inherently part of the system, because identifying audio packets with corresponding video packets is essential for the system operation), and

Wherein the output data stream further includes client data parcels from the second client process (audio packets of output stream shown on Fig. 5).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2662

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 7, 9, 20, 22, 33, 35, 71, 78, 80, 88 and 90, are rejected under 35 U.S.C. 103(a) as being unpatentable over Settle in view of Murase (US 6,388,994).

Settle teaches all the limitations of parent claims 1, 14, 26, 69 and 82 (see the rejection above), including utilizing different data formats for the input and output data streams 13:35-45.

Settle does not teach utilizing ATM protocol, including ATM idle cells.

Murase teaches utilizing ATM protocol, including ATM idle cells (transmitting station 101 on Fig. 2 utilizing ATM and comprising dummy/idle cell generation 4:32-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add utilizing ATM protocol, including ATM idle cells of Murase to the system of Settle to implement popular ATM standard in the system, making the system compatible with numerous ATM devices.

14. Claims 8, 21, 34, 79 and 89, are rejected under 35 U.S.C. 103(a) as being unpatentable over Settle in view of Moore (US 5,719,858).

Settle teaches all the limitations of parent claims 1, 14, 26, 69 and 82 (see the rejection above), including utilizing different data formats for the input and output data streams 13:35-45.

Settle does not teach utilizing frame relay protocol, including using flags to identify disposable frame corresponding to filler parcels.

Moore teaches utilizing frame relay protocol, including using flags to identify disposable frame corresponding to filler parcels (Network Access unit NAU to provide frame relay services

Art Unit: 2662

1:12-26 and using flag fills during idle time 11:29-33, inherently identifying disposable frames, because the process is equivalent to the inserting idle cells in ATM protocol).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add utilizing frame relay protocol, including using flags to identify disposable frame corresponding to filler parcels of Moore to the system of Settle to implement frame relay standard in the system, making the system compatible with numerous frame relay devices.

15. Claims 10, 23 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Settle in view of Kawai (US 6,687,225).

Settle teaches all the limitations of parent claims 1, 14, 26, 69 and 82 (see the rejection above).

Settle does not teach utilizing prioritizing the client data parcels based upon the associated QoS of the parcels.

Kawai teaches utilizing prioritizing the client data parcels based upon the associated QoS of the parcels (providing the quality/priority guaranteed for classes of ATM 1:6-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add prioritizing the client data parcels based upon the associated QoS of the parcels of Kawai to the system of Settle to implement QoS in the system, making the system responsive to the client needs, by prioritizing the client communications, per their requirement.

Allowable Subject Matter

16. Claims 4, 11, 12, 17, 24, 30, 36-38, 70, 72, 76, 85, 92 and 93 would be allowable if rewritten to overcome the rejection(s) objections, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'DL' followed by a stylized name.

Dmitry Levitan
Patent Examiner.
08/31/05